US Army Corps of Engineers

# Public Scoping Meeting

# Environmental Impact Statement
# Oyster Restoration Alternatives

# Structure of Tonight's Meeting

- Brief 15-20 minute presentation.
- Address questions about the presentation.
- Break-up into small groups to obtain input.
- Report back to entire group.

# Why Are We Here?

The Purpose of this Scoping Meeting:

- Provide status report of native oyster population and restoration efforts.
- Present States' proposal and preliminary alternatives to be evaluated in the EIS.
- Review process to prepare EIS.
- Present proposed schedule for completing EIS.
- Obtain public input.

# How Will Public Comments Be Obtained?

- Public comments will be obtained via:
  - Scoping Meetings
    - MD – February 5th
    - VA – January 28th
  - Online Public Bulletin Board at www.nao.usace.army.mil/
  - Via U.S. mail, fax, and e-mail
- All comments need to be submitted by February 27, 2004.

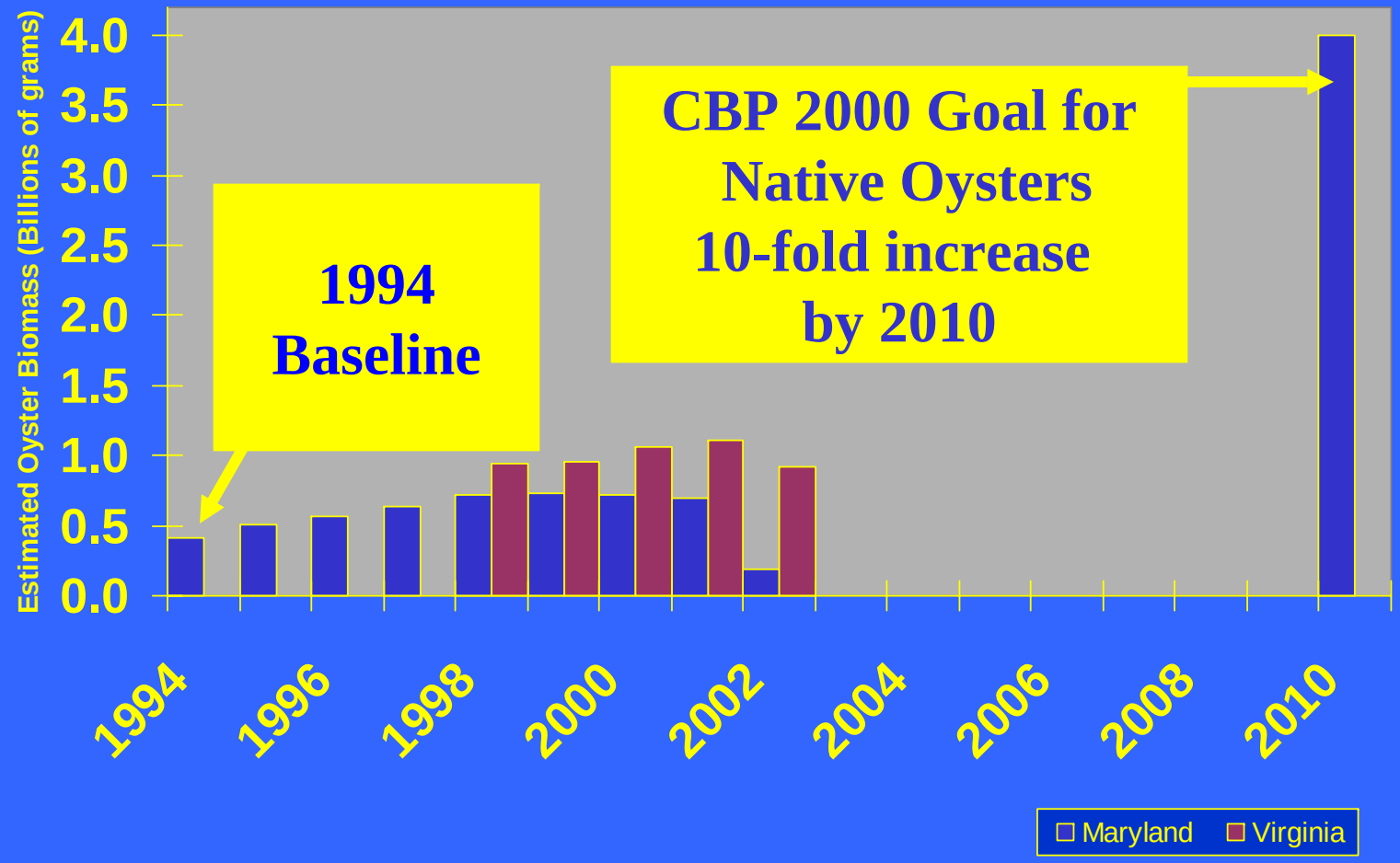
# Benefits of a Rehabilitated and Self-sustaining Oyster Resource

- Bay Health
  - Improved Water quality
  - Creation of Aquatic Habitat
- Economics
  - Viable Oyster Industry
- Cultural
  - Working watermen communities

# Status of Native

# Oyster Populations

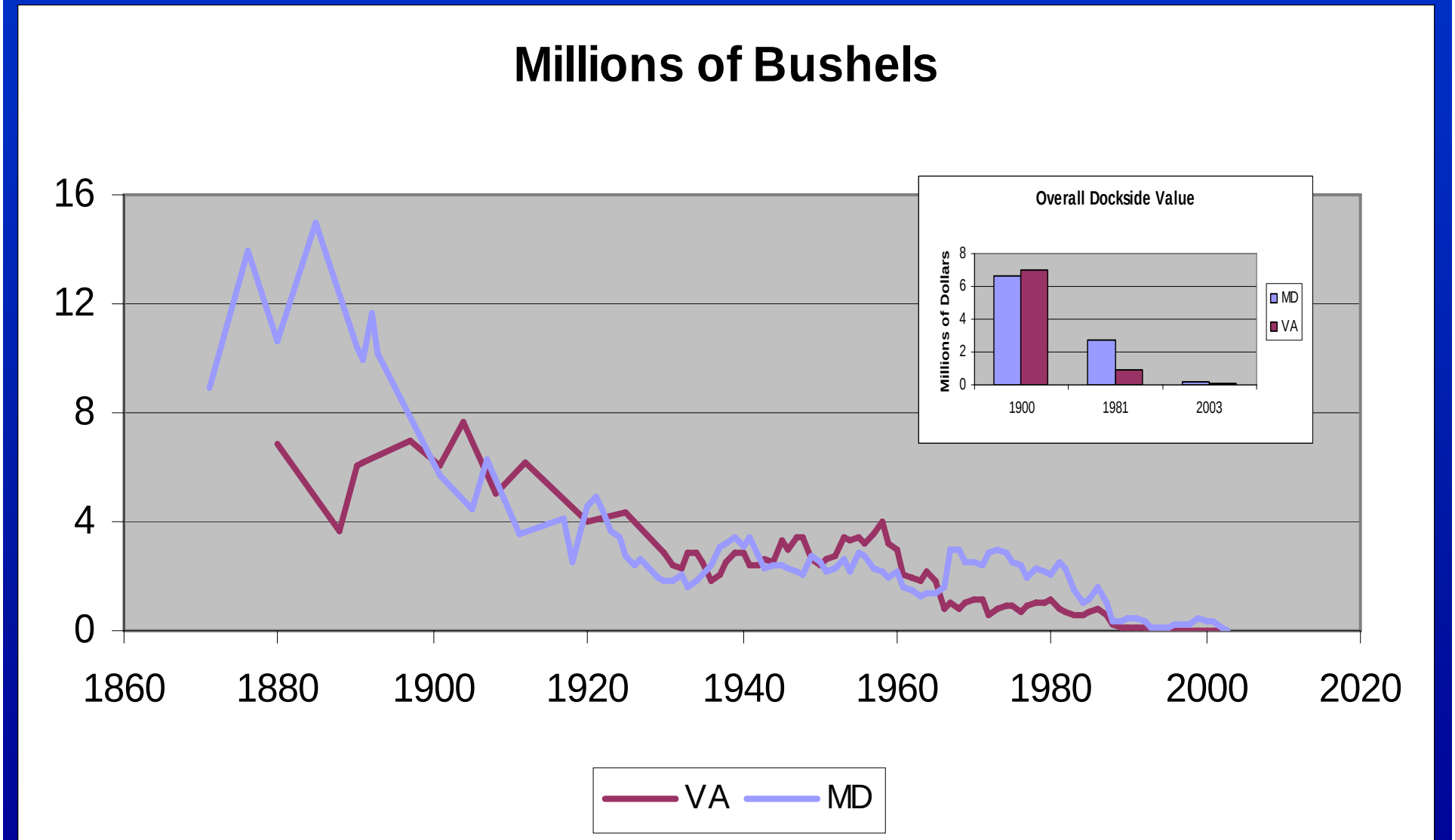
# Chesapeake Bay Oyster Proposed Biomass Index*




*** Source: A proposed Index based on collaboration with:**

Maryland Department of Natural Resources, Sarbanes Cooperative Oxford Laboratory, University of Maryland Marine Estuarine and Environmental Studies Program, Virginia Institute of Marine Science Department of Fisheries Science Mollusca Ecology Program, Virginia Marine Resources Commission Conservation and Replenishment Division http://www.vims.edu/mollusc/cbope/basin.htm

# Chesapeake Bay Oyster Harvest



# Factors Affecting Native Oysters

- Harvest Pressure
- Habitat Degradation
  - poor water quality (dissolved oxygen)
  - lack of suitable cultch material
  - increase in impervious surfaces resulting in increased freshwater flow (freshets)
- Disease
  - MSX and Dermo

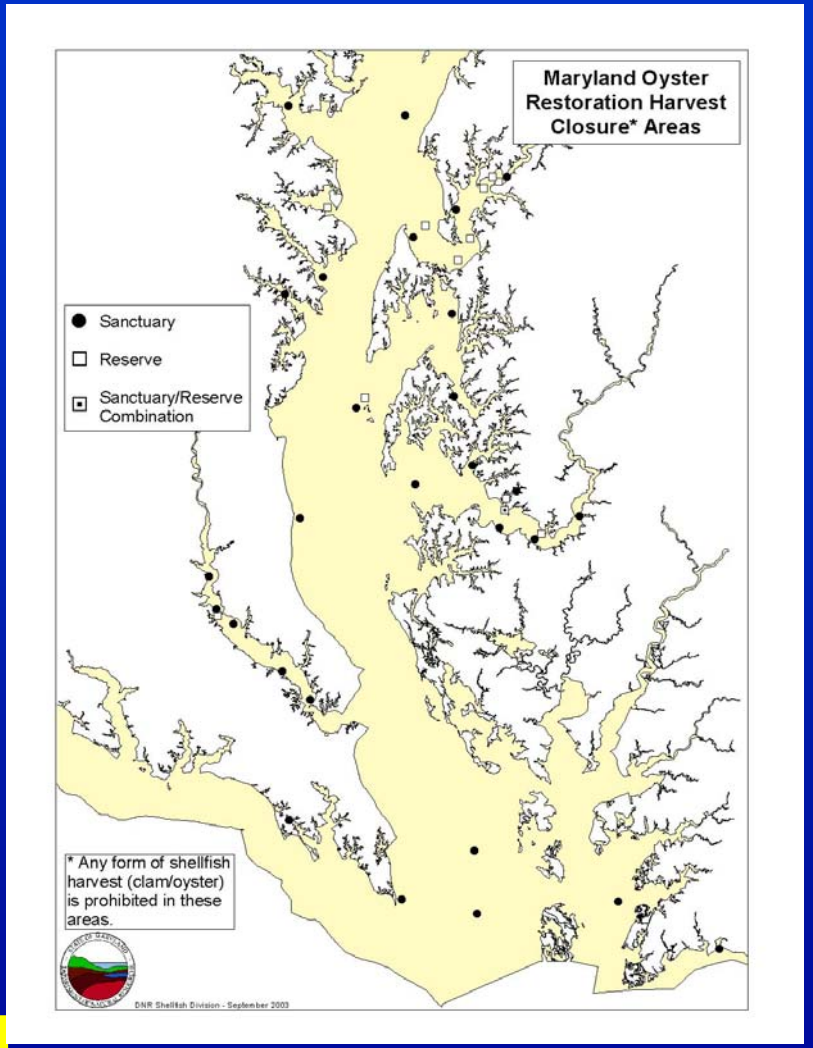
# Status of Current Oyster Restoration Efforts

# MD's Past Goals and Strategies

- Past goal (pre-1994) focused on augmenting the public fishery.
- Past strategy was to plant cultch material in high salinity areas, and transfer spat set to lower salinity areas for grow-out.

# MD's Current Goals and Strategies

- Current goal (post-1994) is to increase biomass and environmental benefits as well as continue to augment the public fishery
- Current strategy is to focus the majority of restoration efforts in low salinity and low disease regions of the Chesapeake Bay, and use of hatchery seed and disease resistant management strategies.
- In order to achieve significant increases in Bay-wide oyster abundance, alternative strategies need to be considered and evaluated.



# MD's Oyster Programs

- REPLETION PROGRAM
  - Goal: harvest
  - 600 acres/year
  - 8,046 acres restored since 1993
- RESERVE PROGRAM
  - Goal: harvest and ecology
  - 11 reserves
  - 75 acres/year
  - 500 acres rehabilitated to date
- SANCTUARY PROGRAM
  - Goal: ecology
  - 31 sanctuaries
  - 125 acres/year
  - 300 acres rehabilitated to date
- HATCHERY PROGRAM
  - UMCES Horn Point
  - 2002: 74M
  - 2003: 164M
  - New facility: 150+M/year

# VA's Past Goals and Strategies

- Past goal (pre-1993) was to augment commercial harvest.
- Past strategy was to plant cultch material in high salinity areas, and transfer spat set to lower salinity areas for grow-out.

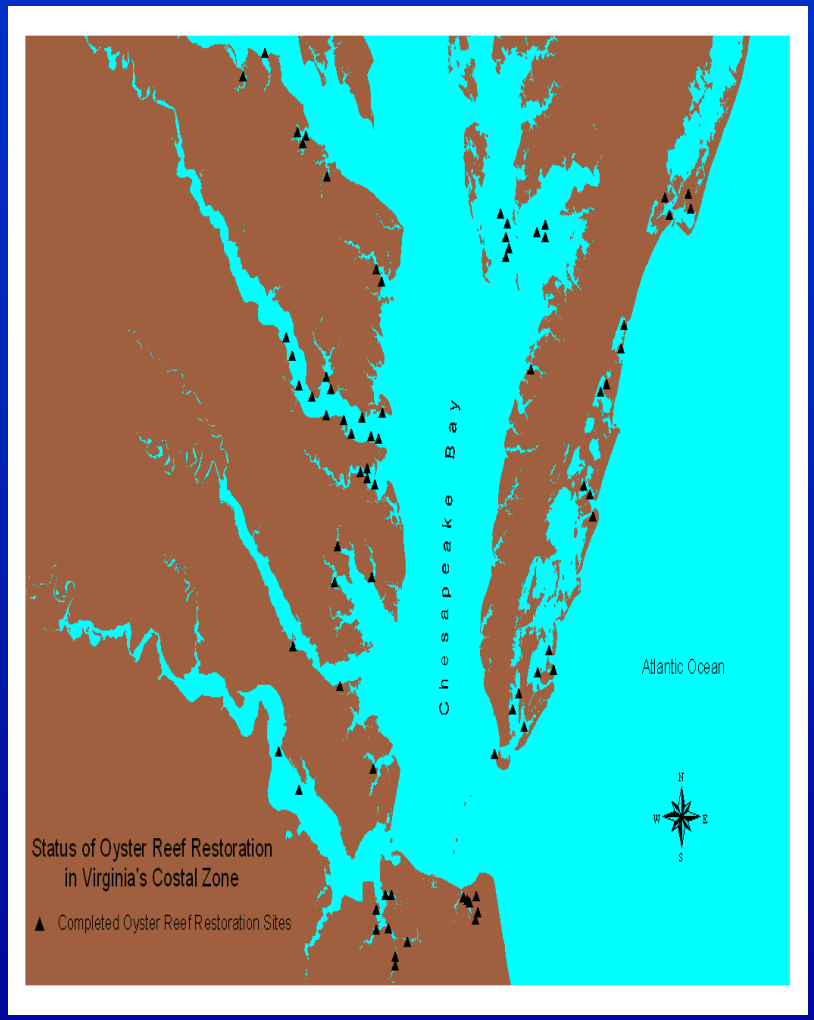
# VA's Current Goals and Strategies

- Current goal (post-1993) is to increase oyster biomass, environmental benefits, and continue to augment the commercial harvest.

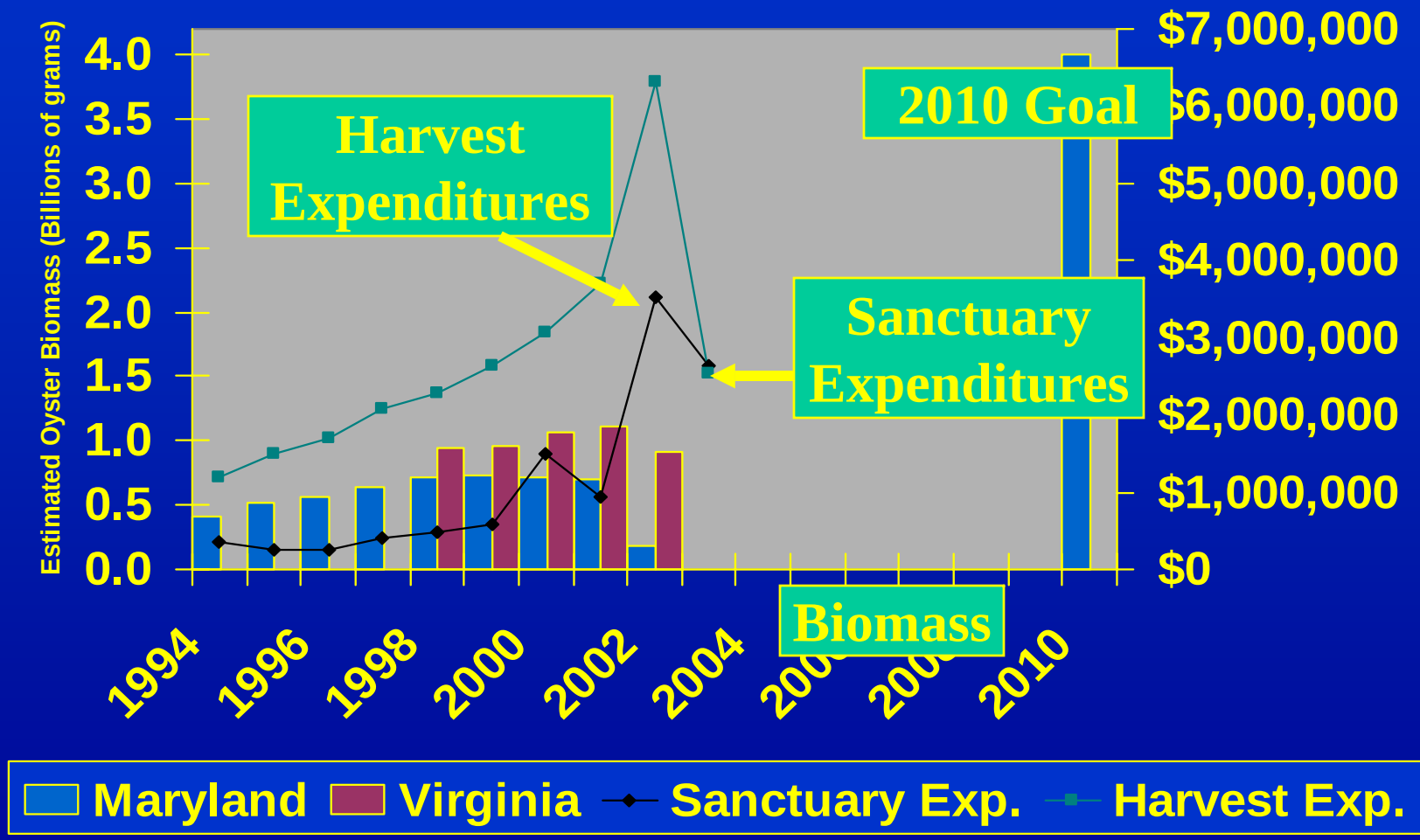
- Current strategy is use genetic rehabilitation strategies to build large sanctuary areas surrounded by harvest and spat-on-shell collection areas. Spat-on-shell can then be transported to additional sanctuaries.

# VA's Oyster Restoration Program

- 13 million bushels of shells and ½ million bushels of seed oysters planted since 1993.
- 57, 3D sanctuary reefs constructed throughout Va Bay and Tribs since 1993.
- Many state, federal, and private partners contributed to the Va oyster restoration effort since 1993 including Va DEQ,EPA, NOAA, ACOE,CBF, Norfolk Rotary Club, local cities and counties, and others.



# Need to Evaluate Alternatives



# Environmental Impact Statement (EIS)

- MD and VA voluntarily agreed to prepare an EIS to evaluate alternative oyster restoration strategies.
- Congress instructed the Corps to prepare an EIS.
- Objective: identify the preferred alternative(s) to establish a self-sustaining oyster population that reaches a level of abundance in Chesapeake bay that would support sustainable harvests comparable to harvest levels during the period 1920-1970.

# MD/VA Proposed Action

- Introduce the Asian oyster species, *Crassostrea ariakensis*, propagated from existing 3rd or later generation of the Oregon stock of this species, into the tidal waters of Maryland and Virginia to increase oyster populations.

- Continue native oyster (*C. virginica*) restoration efforts in those areas of the Chesapeake Bay where conditions are most favorable to achieve the Bay's oyster restoration goals.

# *Crassostrea ariakensis*
# Oregon Stock

- Imported to Oregon between 1969-1971 with a shipment of Kumamoto seed from Ariake Bay, Japan.
- Transferred to Oregon State University where they have been used in accordance with ICES protocol.
- VIMS currently using the Oregon stock for aquaculture industry field trials and lab experiments.
- Studies report promising growth and survival characteristics.
- Oregon stock will be used in MD's field and lab experiments.

# Preliminary Alternatives for Evaluation in the EIS

- **Alternative 1** – no action – continue native oyster restoration program.
- **Alternative 2** – expand native oyster restoration program.
- **Alternative 3** – implement temporary harvest moratorium on native oysters and an oyster industry compensation (buy-out) program in Maryland and Virginia.
- **Alternative 4** – establish and/or expand native oyster aquaculture program.
- **Alternative 5** – establish non-native aquaculture program.
- **Alternative 6** – introduce and propagate an alternative oyster species, or strain of C. ariakensis.
- **Alternative 7** – combination of alternatives.

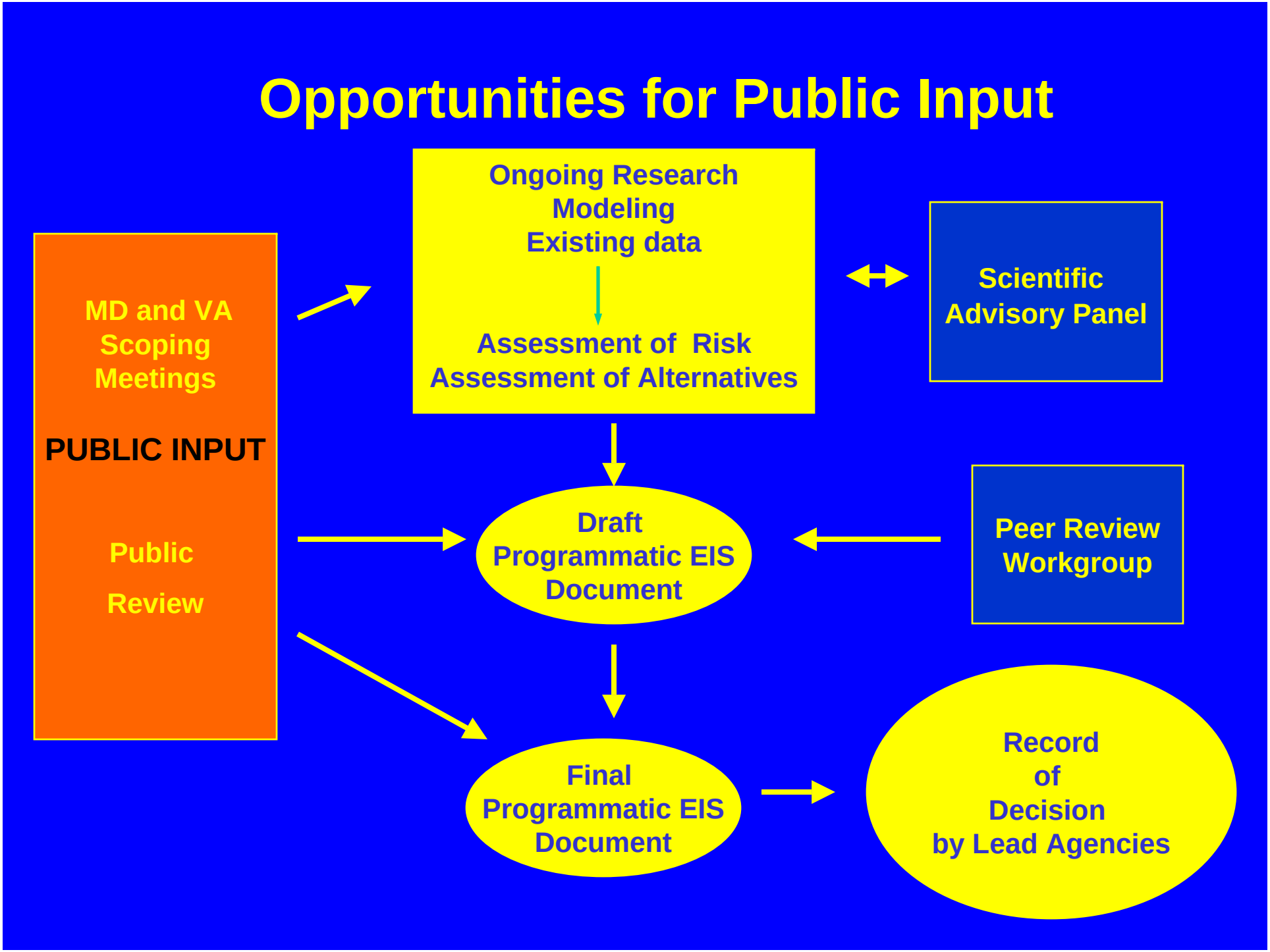
# VA and MD
# Proposed Study Schedule

| | |
|---|---|
| ❖ Notice of Intent Released | January 5, 2004 |
| ❖ Public Scoping Meetings | January 26 & 28, 2004 |
| ❖ Public Comments Due | February 20, 2004 |
| ❖ Prepare Draft EIS | March 04 – Spring 05 |
| ❖ Public Meetings | Early 2005 |
| ❖ Final EIS Published | Spring/Summer 2005 |

# NEPA Planning Process

1. Identify purpose and need
2. Describe proposed action
3. Evaluate and compare alternatives
4. Describe existing conditions
5. Describe impacts to the Human Environment
6. Recommend/select plan - prepare Record of Decision (ROD)

# Opportunities for Public Input



Break-up Into Small Groups to Obtain Input.

Report Back to Entire Group.